

Work Order ID 68959

Tuesday, April 26, 2011 12:59:17 PM



Page 1

Item ID: D3278-2

Accept



Setup Start



Revision ID:

Stop



Item Name: Support

Start Date: 4/26/2011 Start Qty: 40.00



Cust Item ID:

Required Date: 4/29/2011 Req'd Qty: 40.00



Customer:

Reference:

Approvals:

Process Plan:

Date: 11/04/12

Tooling:

Date:

QC:

Date:

SPC (Y/N):

Date:

Run Start



Stop



Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

Draw Nbr

Revision Nbr

D3278

Rev C

100

0.00



SHEAR

Bandsaw

Memo

0.00

Jeaspa Bandsaw

Cut blank: 2.00" x 1.00" x 2.550" long

B.A 11/05/12

40

0

110

0.00



HAAS CNC VERTICAL MACHINING #1

HAAS 1

Memo

0.00

HAAS CNC vertical machine #1

1- Machine as per Folio FA405 and Dwg D3278-2- Debur and
Tumble Identify as D3278-2

B.A 11/05/16

40

0

120

0.00



QC2- Inspect parts off machine FAI/FAIB

QC

Memo

0.00

Quality Control

B.A 11/05/16

40

0

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Work Order ID 68959

Page 2

Tuesday, April 26, 2011 12:59:17 PM

Item ID: D3278-2

Accept



Setup Start



Revision ID:

Stop



Item Name: Support

Start Date: 4/26/2011 Start Qty: 40.00



Cust Item ID:

Required Date: 4/29/2011 Req'd Qty: 40.00



Customer:

Reference:

Run Start



Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Stop



QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

130 QC8- Inspect parts - second check

0.00

JL 11/05/17



QC Memo

0.00

Quality Control

140 Chemical Conversion Coat per QSI005 4.1

0.00



HandFinish Memo

0.00

Hand Finishing

40 BR 11-5-17.

150 White Gloss(Ref:4.3.5.1) per QSI005 4.3-Alum

0.00



Powdercoat Memo

0.00

Powder Coating

116964

Memo

START TIME:

12:00

OVEN TEMPERATURE:

320 FINISH TIME:

12:30.

40 BR 11-5-17.

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Work Order ID 68959

Tuesday, April 26, 2011 12:59:17 PM



Page 3

Item ID: D3278-2

Accept



Setup Start



Revision ID:

Stop



Item Name: Support

Start Date: 4/26/2011 Start Qty: 40.00



Cust Item ID:

Required Date: 4/29/2011 Req'd Qty: 40.00



Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Run Start



Stop



Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
160 QC Quality Control	QC3- Inspect Part Finish Memo	0.00 0.00			16	40	0	11/15/17	
170 Packaging Packaging	Identify as per dwg & Stock Location <i>Small-fab</i> Memo	0.00 0.00					11/15/17	SP (40)	
180 QC Quality Control	QC21- Final Inspection - Work Order Release Memo	0.00 0.00						11/15/18	

ME
11-05-17

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

Tuesday, April 26, 2011 12:59:24 PM

Page 1

Work Order ID: 68959

Parent Item: D3278-2

Parent Item Name: Support



Start Date: 4/26/2011

Required Date: 4/29/2011

Start Qty: 40.00

Required Qty: 40.00

Comments: IPP: ☐A☐04.04.19☐New issue☐KJ/JLM
IPP B 07.09.06 Rev C dwg EC Verified by: JLM

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
M6061T6B1.000X02.00 0		Purchased	No			100	f	52.4300	0.2337	9.84			



6061-T6 Bar 1.00 x 2.00



Location	Loc Qty	Loc Code
MAT004	52.43	
112567	22.6	
114415	0.87	
115045	5.6	
116623	3.36	
✓ 117379	20	

9.8400 ft H.A 11/05/12

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

DART AEROSPACE LTD		Work Order: 18959
Description: Support		Part Number: D3278-2
Inspection Dwg: D3278 Rev: C		Page 1 of 1

FIRST ARTICLE INSPECTION CHECKLIST

☒ First Article ☐ Prototype

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
Ø0.098	+0.005/-0.000	Ø0.100	✓		Vein	GA-01
0.359	+/-0.005	0.357	✓		"	"
0.609	+/-0.010	0.610	✓		"	"
0.250	+/-0.010	0.247	✓		"	"
1.480	+/-0.005	1.480	✓		"	"
R0.125	+/-0.010	R0.125	✓		R-6	ref.
0.119	+0.005/-0.004	0.120	✓		Vein	GA-01
2.439	+/-0.010	2.440	✓		"	"
1.980	+/-0.010	1.981	✓		"	"
R0.13	+/-0.030	R0.125	✓		R-6	ref.
Ø0.257	+0.005/-0.000	Ø0.259	✓		Vein	GA-01
R0.375	+/-0.010	R0.375	✓		R-6	ref.
0.875	+/-0.010	0.875	✓		Vein	GA-01
0.500	+/-0.010	0.502	✓		H-6	31006
R0.400	+/-0.010	R0.400	✓		R-6	ref.
R1.00	+/-0.030	R1.000	✓		"	"
1.720	+/-0.010	1.720	✓		Vein	GA-01
R0.125	+/-0.010	R0.125	✓		R-6	ref.
0.125	+/-0.010	0.125	✓		Vein	GA-01

Measured by: K.A.	Audited by: SL	Prototype Approval:	N/A
Date: 11/05/16	Date: 11/05/17	Date:	N/A

Rev	Date	Change	Revised by	Approved
A	04.04.19	New Issue P/O D3278-041	KJ/JLM	
B	05.06.08	0.359 was 0.365; 0.119 was 0.125	KJ/JLM	
C	07.09.26	Dimensions updated per Dwg Rev. C	KJ/EC	

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

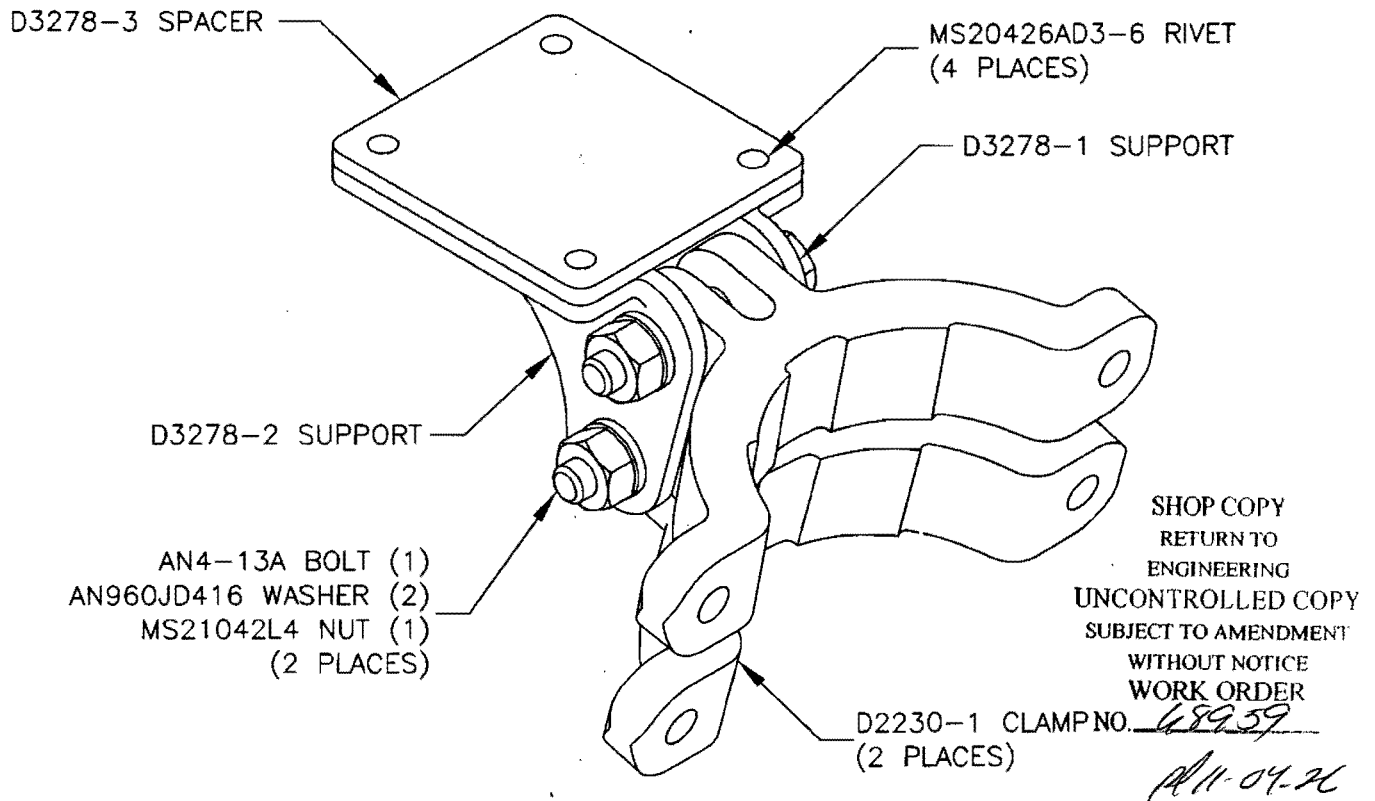
NOTE: Date & initial all entries

DART

DESIGN <i>97</i>	DRAWN BY <i>BC</i>	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED <i>B</i>	APPROVED <i>H</i>	DRAWING NO. D3278	REV. C SHEET 1 OF 3
DATE 07.07.24		TITLE SUPPORT ASSEMBLY	SCALE NTS
A	04.03.03	NEW ISSUE	
B	05.03.31	CHANGE DIM/TOL TO ENSURE FIT	
C	07.07.24	CHANGED RIVETS PER PAR #185	

RELEASED
07-08-26

D3278-041 SUPPORT ASSEMBLY



Qty	Part Number	Description
X	D3278-041	SUPPORT ASSEMBLY
2	D2230-1	CLAMP
1	D3278-1	SUPPORT
1	D3278-2	SUPPORT
1	D3278-3	SPACER
2	AN4-13A	BOLT
4	AN960JD416	WASHER
4	MS20426AD3-6	RIVET
2	MS21042L4	NUT

Copyright © 2004 by DART AEROSPACE LTD

THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

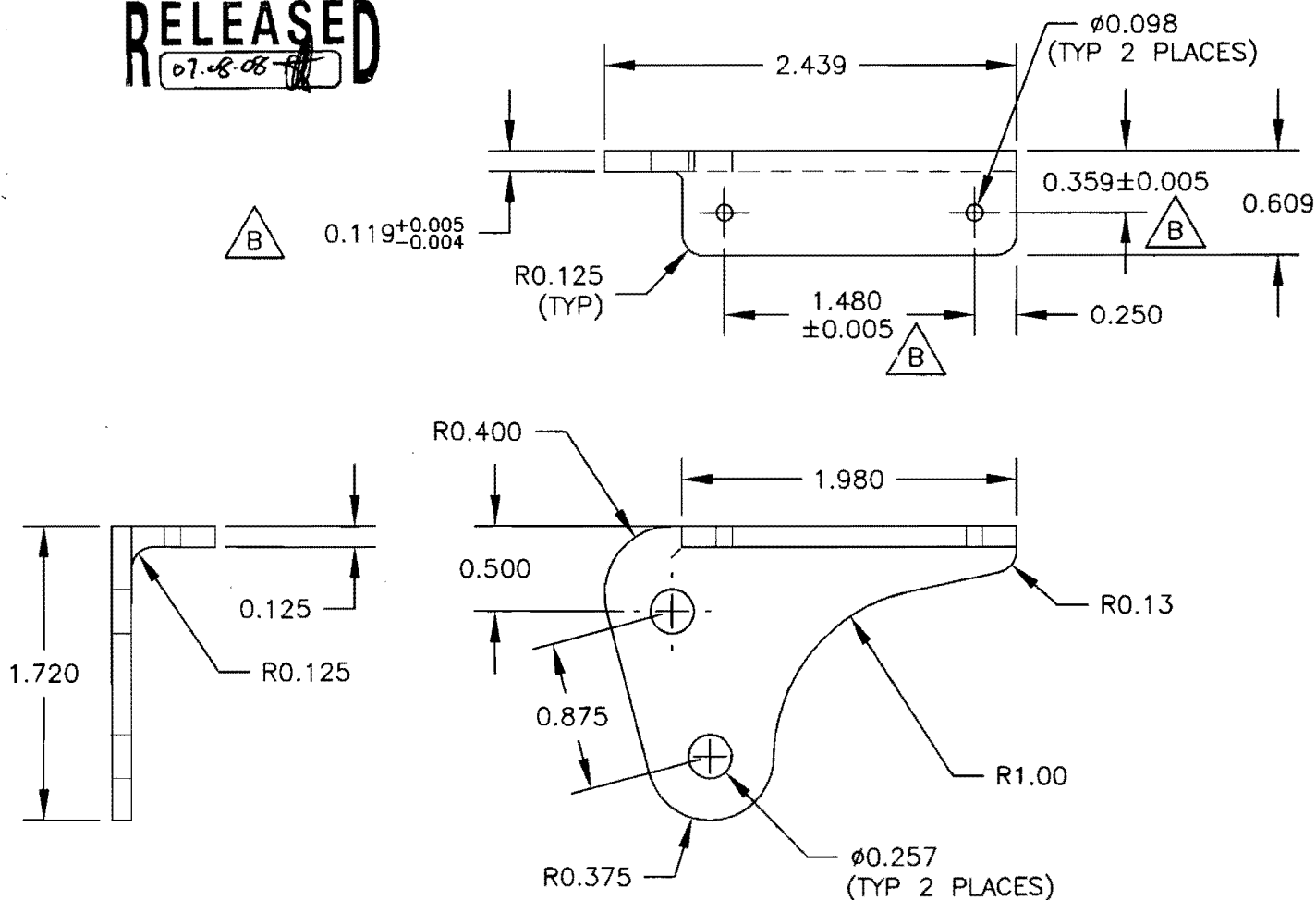
NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries



DESIGN <i>GP</i>	DRAWN BY <i>BC</i>	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED <i>B</i>	APPROVED <i>H</i>	DRAWING NO. D3278	REV. C SHEET 2 OF 3
DATE 07.07.24		TITLE SUPPORT ASSEMBLY	SCALE 1:1

RELEASED
07-08-08



D3278-1 SUPPORT (SHOWN)
D3278-2 SUPPORT (OPPOSITE)

- 1) MACHINE PER DWG FILE "D3278-1.SLDPRT"
- 2) MATERIAL: 6061-T6 (OR 6061-T651/T6510/T6511/T62) BAR
PER AMS-QQ-A-225/8 (OR AMS 4117/4128/4115/4116)
PER AMS-QQ-A-200/8 (OR AMS 4160)
(REF. DART SPEC. M6061T6B)
- 3) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
POWDER COAT WHITE (4.3.5.1) PER DART QSI 005 4.3
- 4) BREAK ALL SHARP EDGES 0.005 TO 0.015
- 5) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 6) ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED

Copyright © 2004 by DART AEROSPACE LTD

THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

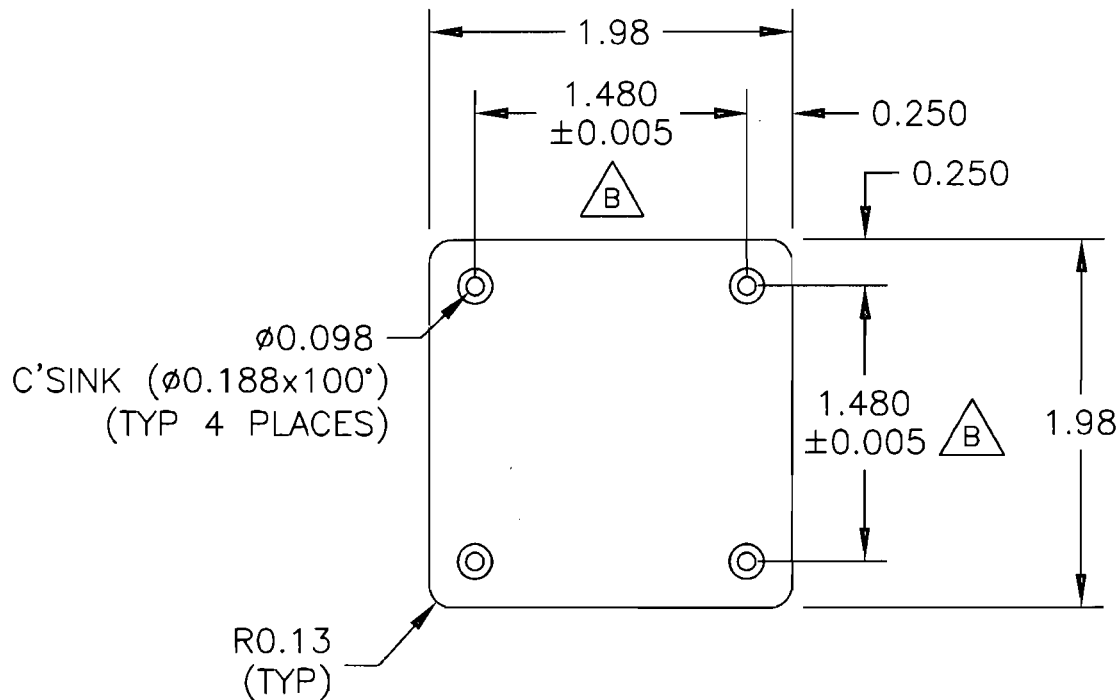
NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries



DESIGN <i>GP</i>	DRAWN BY <i>BC</i>	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED <i>B</i>	APPROVED <i>[Signature]</i>	DRAWING NO. D3278	REV. C SHEET 3 OF 3
DATE 07.07.24		TITLE SUPPORT ASSEMBLY	SCALE 1:1

RELEASED
07.08.08



610 68959

D3278-3 SPACER

- 1) MATERIAL: DELRIN II 150E OR ACETRON GP ACETAL
(REF. DART SPEC. M-DELRIN-B0.125x2.000) OR
DELRIN II 150E OR ACETRON GP ACETAL
(REF. DART SPEC. M-DELRIN-S.125)
- 2) BREAK ALL SHARP EDGES 0.005 TO 0.015
- 3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED

Copyright © 2004 by DART AEROSPACE LTD

THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries